

CLAIMS

1. A method for treating tumors in a mammal comprising:
  - administering to the mammal spores of a toxin-defective, anaerobic bacterium; and
    - administering to the mammal a microtubule stabilizing anti-tumor agent; whereby the tumor regresses or its growth is slowed or arrested.
2. The method of claim 1 wherein the anaerobic bacterium is *Clostridium novyi*.
3. The method of claim 1 wherein the anaerobic bacterium is *Clostridium sordellii*.
4. The method of claim 1 wherein the spores are administered intravenously.
5. The method of claim 1 wherein the spores are administered intratumorally.
6. The method of claim 1 wherein all or part of a toxin gene of a wild type form of the anaerobic bacterium is deleted.
7. The method of claim 1 wherein the anti-tumor agent is a taxane.
8. The method of claim 1 wherein the anti-tumor agent is selected from the group consisting of 10-deacetyltaxol; 7-epi-10-deacetyltaxol; 7-xylosyl-10-deacetyltaxol; 7-epi-taxol; cephalomannine; baccatin III; baccatin V; 10-deacetyl baccatin III; 7-epi-10-deacetyl baccatin III; 2-debenzoyl-2-(p-trifluoromethylbenzoyl)taxol; and 20-acetoxy-4-deacetyl-5-epi-20,0-secotaxol.
9. The method of claim 1 wherein the anti-tumor agent is selected from the group consisting of arsenic trioxide, discodermolide, epothilone B, and (+)-14-normethyl discodermolide.
10. The method of claim 1 wherein the anti-tumor agent is taxol.

11. The method of claim 1 wherein the anti-tumor agent is taxotere.

12. The method of claim 1 wherein the anti-tumor agent is cephalomannine.

13. The method of claim 1 further comprising:

administering a nitric oxide synthetase (NOS) inhibitor to the mammal.

14. The method of claim 1 wherein the spores and anti-tumor agent are administered serially.

15. The method of claim 13 wherein the spores, anti-tumor agent and NOS inhibitor are administered serially.

16. A kit for treating tumors, wherein components of the kit are in a divided or undivided container, said components comprising: spores of an anaerobic bacterium which is toxin-defective; an agent which stabilizes microtubules.

17. The kit of claim 16 wherein all or part of a toxin gene of a wild type form of the anaerobic bacterium is deleted in the spores of the anaerobic bacterium.

18. The kit of claim 16 further comprising a nitric oxide synthetase inhibitor.

19. The kit of claim 16 wherein the anaerobic bacterium is *Clostridium novyi*.

20. The kit of claim 16 wherein the anaerobic bacterium is *Clostridium sordellii*.

21. The kit of claim 16 wherein the agent is taxol.

22. The kit of claim 16 wherein the agent is taxotere.

23. The kit of claim 16 wherein the agent is cephalomannine.

24. The kit of claim 16 wherein the agent is a taxane.